

What is claimed is:

1. An electroless plating apparatus, comprising:
a substrate supporting unit for supporting a
5 substrate;
a plate disposed to face the substrate supported by
the substrate supporting unit;
a processing solution discharge unit, formed on a
surface of the plate which faces the substrate, for
10 discharging a processing solution; and
a gap adjusting unit for changing a gap between the
plate and the substrate.
2. The electroless plating apparatus of claim 1, further
15 comprising a heating unit for heating the plate.
3. The electroless plating apparatus of claim 1, further
comprising an inclination adjusting unit for changing
inclinations of the substrate and the plate as a unit.
- 20 4. The electroless plating apparatus of claim 1, further
comprising a solution supply unit for supplying a processing
solution to the plate after adjusting the temperature
thereof.

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5. The electroless plating apparatus of claim 4, wherein the solution supply unit supplies the processing solution in turn.
- 5 6. The electroless plating apparatus of claim 4, wherein the solution supply mechanism has a processing solution producing unit for producing a processing solution by mixing plural chemicals.
- 10 7. The electroless plating apparatus of claim 1, further comprising:
- a second plate disposed to face a second surface of the substrate different from a surface thereof facing the plate;
- 15 a liquid discharge unit, formed on a surface of the second plate facing the second surface of the substrate, for discharging a liquid at a controlled temperature; and
- a second gap adjusting unit for changing a gap between the second plate and the substrate.
- 20 8. The electroless plating apparatus of claim 7, further comprising a solution supply unit for supplying a liquid discharged from the liquid discharge unit into the second plate after adjusting the temperature thereof.
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9. The electroless plating apparatus of claim 1, further comprising an operational nozzle for discharging a processing solution onto the substrate.

5 10. An electroless plating method, comprising:

a supporting step for supporting a substrate;

a disposing step for disposing a plate to face the substrate supported at the supporting step; and

10 a coating forming step for forming a coating on the substrate by supplying a processing solution between the plate and the substrate disposed to face the plate at the disposing step.

11. The electroless plating method of claim 10, wherein
15 the disposing step includes a gap adjusting step for adjusting a gap between the substrate and the plate, such that the gap gets smaller than a thickness of the processing solution when the processing solution is kept on the substrate by a surface tension.

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12. The electroless plating method of claim 10, wherein the coating forming step includes a processing solution generation step for producing a processing solution by mixing plural chemicals.

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13. The electroless plating method of claim 10, further comprising an inclining step for inclining the substrate supported at the supporting step, prior to the coating forming step.

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14. The electroless plating method of claim 10, further comprising a heating step for heating the substrate supported at the supporting step, prior to the coating forming step.

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